

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: IRiS

Report Number: P1318139

Luminaire Tested: P3SQAS17R309835DE010 E3SQCA451MW

Issue Date: 1/29/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1318139  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-76)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/29/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: IRiS  
Catalog Number: P3SQAS17R309835DE010 E3SQCA451MW  
Description: 3in Adjustable LED luminaire with, R30 optic, 3500K CCT AND, 98CRI , E3SQCA451MW TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

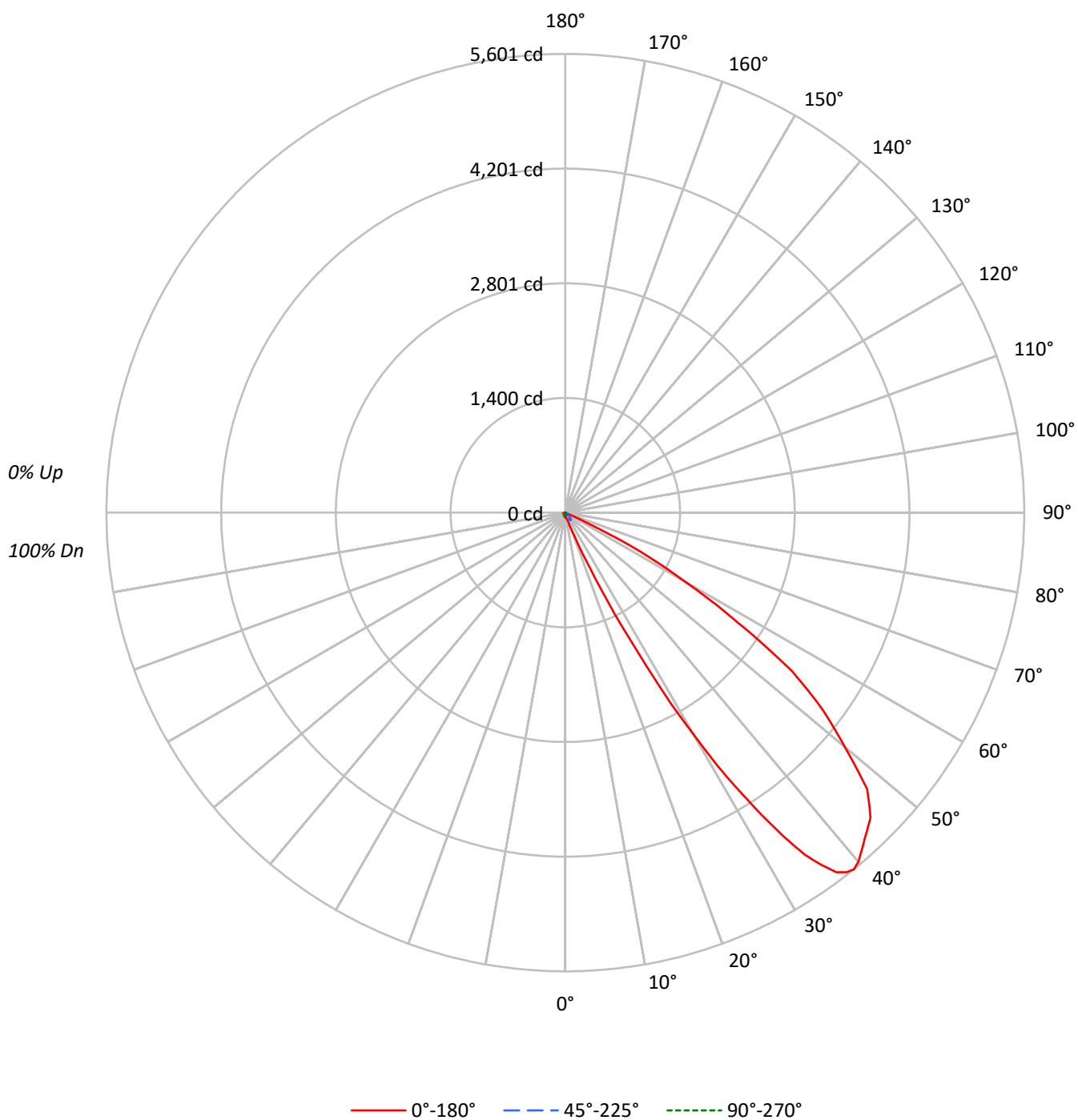
Lumens per Lamp: N/A  
Luminaire Lumens: 1456.0 lumens  
Efficiency: N/A  
Efficacy: 71.4 lumens/watt  
Spacing Criteria (0/90/45): 4.07 / 0.66 / 1.44  
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')  
CIE Type: Direct

Input Watts (W): 20.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

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### Luminous Intensity Polar Plot



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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

|     |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|-----|-----|-----|--|-----|
| RF  | 20  |     |     |     | 20  |     |     |     | 20  |     |     |  | 20  |     |     |  | 20  |
| RC  | 80  |     |     |     | 70  |     |     |     | 50  |     |     |  | 30  |     |     |  | 10  |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  |  | 50  | 30  | 10  |  | 50  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 |  | 106 | 106 | 106 |  | 102 |
| 1   | 110 | 106 | 102 | 99  | 108 | 104 | 100 | 97  | 100 | 97  | 94  |  | 96  | 93  | 91  |  | 92  |
| 2   | 100 | 93  | 86  | 81  | 98  | 91  | 85  | 80  | 87  | 83  | 78  |  | 84  | 80  | 77  |  | 81  |
| 3   | 91  | 81  | 73  | 67  | 89  | 79  | 72  | 66  | 76  | 70  | 65  |  | 74  | 68  | 64  |  | 71  |
| 4   | 83  | 71  | 62  | 55  | 80  | 69  | 61  | 55  | 67  | 60  | 54  |  | 64  | 58  | 53  |  | 62  |
| 5   | 75  | 62  | 52  | 46  | 73  | 60  | 52  | 45  | 58  | 51  | 45  |  | 56  | 50  | 44  |  | 54  |
| 6   | 68  | 54  | 45  | 38  | 66  | 53  | 44  | 38  | 51  | 43  | 37  |  | 49  | 42  | 37  |  | 48  |
| 7   | 62  | 48  | 38  | 32  | 60  | 47  | 38  | 32  | 45  | 37  | 31  |  | 44  | 36  | 31  |  | 42  |
| 8   | 56  | 42  | 33  | 27  | 55  | 41  | 33  | 27  | 40  | 32  | 26  |  | 39  | 32  | 26  |  | 37  |
| 9   | 52  | 37  | 29  | 23  | 50  | 37  | 28  | 23  | 36  | 28  | 22  |  | 34  | 27  | 22  |  | 33  |
| 10  | 48  | 33  | 25  | 19  | 46  | 33  | 25  | 19  | 32  | 24  | 19  |  | 31  | 24  | 19  |  | 30  |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°      | 45°   | 90°  | 135° | 180°  |
|-----|---------|-------|------|------|-------|
| 0°  | 9713    | 9713  | 9713 | 9713 | 9713  |
| 5°  | 10390   | 10183 | 9543 | 8696 | 8488  |
| 10° | 11367   | 10073 | 8359 | 7502 | 7292  |
| 15° | 16617   | 10056 | 6989 | 6347 | 6561  |
| 20° | 41805   | 11015 | 5388 | 5388 | 6066  |
| 25° | 194150  | 13758 | 4200 | 4903 | 5587  |
| 30° | 618054  | 19031 | 3162 | 4634 | 5608  |
| 35° | 1072439 | 23211 | 2586 | 4394 | 5677  |
| 40° | 1250745 | 23157 | 1933 | 4406 | 5800  |
| 45° | 1282707 | 16440 | 2095 | 4774 | 6284  |
| 50° | 1192855 | 9190  | 1634 | 4930 | 7234  |
| 55° | 1013831 | 4774  | 1832 | 5525 | 8107  |
| 60° | 585523  | 1274  | 2101 | 5924 | 8887  |
| 65° | 119442  | 0     | 2486 | 7009 | 9984  |
| 70° | 1863    | 604   | 3072 | 8006 | 11733 |
| 75° | 1664    | 799   | 3261 | 8185 | 13907 |
| 80° | 1190    | 1190  | 4860 | 9720 | 15769 |
| 85° | 0       | 2371  | 9683 | 9683 | 19365 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1282707 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 5.1    | 0.4       |
| 10°-20°   | 14.7   | 1.0       |
| 20°-30°   | 84.0   | 5.8       |
| 30°-40°   | 392.2  | 26.9      |
| 40°-50°   | 554.6  | 38.1      |
| 50°-60°   | 341.2  | 23.4      |
| 60°-70°   | 52.0   | 3.6       |
| 70°-80°   | 8.2    | 0.6       |
| 80°-90°   | 4.1    | 0.3       |
| 90°-100°  | 0.0    | 0.0       |
| 100°-110° | 0.0    | 0.0       |
| 110°-120° | 0.0    | 0.0       |
| 120°-130° | 0.0    | 0.0       |
| 130°-140° | 0.0    | 0.0       |
| 140°-150° | 0.0    | 0.0       |
| 150°-160° | 0.0    | 0.0       |
| 160°-170° | 0.0    | 0.0       |
| 170°-180° | 0.0    | 0.0       |
| 0°-30°    | 103.7  | 7.1       |
| 0°-40°    | 495.9  | 34.1      |
| 0°-60°    | 1391.7 | 95.6      |
| 0°-90°    | 1456.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1456.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45° | 90° | 135° | 180° | Flux |
|-----|------|-----|-----|------|------|------|
| 0°  | 56   | 56  | 56  | 56   | 56   |      |
| 5°  | 60   | 59  | 55  | 50   | 49   | 6    |
| 15° | 93   | 56  | 39  | 36   | 37   | 33   |
| 25° | 1022 | 72  | 22  | 26   | 29   | 629  |
| 35° | 5101 | 110 | 12  | 21   | 27   | 3061 |
| 45° | 5266 | 68  | 9   | 20   | 26   | 3993 |
| 55° | 3376 | 16  | 6   | 18   | 27   | 2873 |
| 65° | 293  | 0   | 6   | 17   | 24   | 530  |
| 75° | 2    | 1   | 5   | 12   | 21   | 3    |
| 85° | 0    | 1   | 5   | 5    | 10   | 0    |
| 90° | 0    | 0   | 0   | 0    | 0    |      |

TEST NUMBER: P1318139

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 10°    | 15°    | 20°    | 22.5°  | 45°   | 67.5° | 90°  | 112.5° | 135° |
|-------|--------|--------|--------|--------|--------|--------|-------|-------|------|--------|------|
| 0°    | 56.4   | 56.4   | 56.4   | 56.4   | 56.4   | 56.4   | 56.4  | 56.4  | 56.4 | 56.4   | 56.4 |
| 2.5°  | 57.6   | 57.6   | 58.9   | 58.9   | 57.6   | 58.9   | 58.9  | 58.9  | 56.4 | 55.2   | 52.7 |
| 5°    | 60.1   | 60.1   | 60.1   | 61.3   | 60.1   | 60.1   | 58.9  | 57.6  | 55.2 | 51.5   | 50.3 |
| 7.5°  | 62.6   | 62.6   | 61.3   | 62.6   | 61.3   | 61.3   | 58.9  | 56.4  | 52.7 | 49.1   | 46.6 |
| 10°   | 65.0   | 65.0   | 63.8   | 63.8   | 62.6   | 62.6   | 57.6  | 54.0  | 47.8 | 44.2   | 42.9 |
| 12.5° | 72.4   | 72.4   | 71.1   | 69.9   | 67.5   | 66.2   | 56.4  | 50.3  | 42.9 | 39.2   | 38.0 |
| 15°   | 93.2   | 92.0   | 89.5   | 85.9   | 79.7   | 78.5   | 56.4  | 46.6  | 39.2 | 35.6   | 35.6 |
| 17.5° | 127.6  | 126.3  | 122.6  | 112.8  | 101.8  | 98.1   | 56.4  | 41.7  | 34.3 | 31.9   | 31.9 |
| 20°   | 228.1  | 218.3  | 199.9  | 175.4  | 149.6  | 136.1  | 60.1  | 36.8  | 29.4 | 28.2   | 29.4 |
| 21°   | 298.0  | 288.2  | 264.9  | 224.4  | 179.1  | 164.3  | 62.6  | 35.6  | 28.2 | 27.0   | 29.4 |
| 22°   | 406.0  | 394.9  | 347.1  | 291.9  | 226.9  | 201.1  | 63.8  | 33.1  | 25.8 | 25.8   | 28.2 |
| 23°   | 566.6  | 548.2  | 467.3  | 379.0  | 283.3  | 246.5  | 66.2  | 31.9  | 24.5 | 25.8   | 27.0 |
| 24°   | 742.0  | 726.1  | 634.1  | 501.6  | 361.8  | 309.1  | 68.7  | 30.7  | 23.3 | 23.3   | 25.8 |
| 25°   | 1021.7 | 1003.3 | 840.1  | 632.9  | 458.7  | 371.6  | 72.4  | 28.2  | 22.1 | 22.1   | 25.8 |
| 26°   | 1383.5 | 1298.8 | 1081.7 | 815.6  | 565.4  | 466.1  | 76.0  | 27.0  | 20.9 | 22.1   | 24.5 |
| 27°   | 1726.9 | 1657.0 | 1412.9 | 1046.2 | 699.1  | 572.8  | 80.9  | 25.8  | 19.6 | 20.9   | 24.5 |
| 28°   | 2178.2 | 2080.1 | 1772.3 | 1323.4 | 880.6  | 693.0  | 85.9  | 24.5  | 18.4 | 20.9   | 23.3 |
| 29°   | 2683.5 | 2546.2 | 2174.5 | 1634.9 | 1085.4 | 827.9  | 90.8  | 23.3  | 17.2 | 19.6   | 23.3 |
| 30°   | 3107.9 | 2979.1 | 2607.5 | 2004.1 | 1320.9 | 1005.7 | 95.7  | 22.1  | 15.9 | 19.6   | 23.3 |
| 31°   | 3605.8 | 3410.8 | 2960.7 | 2316.8 | 1523.3 | 1183.5 | 100.6 | 19.6  | 14.7 | 18.4   | 22.1 |
| 32°   | 4009.3 | 3873.2 | 3394.9 | 2670.0 | 1789.4 | 1379.8 | 104.3 | 18.4  | 14.7 | 18.4   | 22.1 |
| 33°   | 4399.4 | 4216.6 | 3754.2 | 3008.5 | 2029.8 | 1580.9 | 107.9 | 17.2  | 13.5 | 17.2   | 22.1 |
| 34°   | 4772.2 | 4604.2 | 4094.0 | 3282.0 | 2256.7 | 1772.3 | 110.4 | 14.7  | 13.5 | 17.2   | 20.9 |
| 35°   | 5100.9 | 4905.9 | 4393.2 | 3549.4 | 2489.7 | 1946.4 | 110.4 | 13.5  | 12.3 | 15.9   | 20.9 |
| 36°   | 5314.3 | 5174.5 | 4653.2 | 3813.1 | 2700.7 | 2112.0 | 110.4 | 12.3  | 11.0 | 15.9   | 19.6 |
| 37°   | 5497.1 | 5333.9 | 4861.7 | 4015.5 | 2856.5 | 2244.4 | 110.4 | 11.0  | 11.0 | 15.9   | 19.6 |
| 38°   | 5571.9 | 5432.0 | 5005.2 | 4194.5 | 3002.4 | 2379.4 | 109.2 | 9.8   | 9.8  | 14.7   | 19.6 |
| 39°   | 5601.3 | 5476.2 | 5113.2 | 4323.3 | 3110.3 | 2470.1 | 106.7 | 8.6   | 9.8  | 14.7   | 19.6 |
| 40°   | 5563.3 | 5468.8 | 5168.4 | 4406.7 | 3196.2 | 2536.3 | 103.0 | 7.4   | 8.6  | 14.7   | 19.6 |
| 42.5° | 5406.3 | 5343.7 | 5156.1 | 4490.1 | 3269.8 | 2585.4 | 89.5  | 4.9   | 8.6  | 13.5   | 19.6 |
| 45°   | 5266.5 | 5197.8 | 5032.2 | 4403.0 | 3174.1 | 2488.5 | 67.5  | 2.5   | 8.6  | 13.5   | 19.6 |
| 47.5° | 4995.4 | 4952.5 | 4822.5 | 4181.0 | 2964.4 | 2270.2 | 47.8  | 1.2   | 7.4  | 12.3   | 18.4 |
| 50°   | 4452.1 | 4411.6 | 4239.9 | 3630.4 | 2549.8 | 1919.4 | 34.3  | 1.2   | 6.1  | 12.3   | 18.4 |
| 52.5° | 3965.2 | 3922.3 | 3675.7 | 3018.3 | 1958.7 | 1406.8 | 22.1  | 1.2   | 6.1  | 12.3   | 18.4 |
| 55°   | 3376.5 | 3301.7 | 2977.9 | 2291.1 | 1388.4 | 943.2  | 15.9  | 1.2   | 6.1  | 11.0   | 18.4 |
| 57.5° | 2499.6 | 2390.4 | 2100.9 | 1562.5 | 799.7  | 511.4  | 8.6   | 1.2   | 6.1  | 11.0   | 18.4 |
| 60°   | 1699.9 | 1634.9 | 1314.8 | 824.2  | 341.0  | 215.9  | 3.7   | 1.2   | 6.1  | 11.0   | 17.2 |
| 62.5° | 1030.2 | 948.1  | 661.1  | 350.8  | 147.2  | 98.1   | 0.0   | 2.5   | 6.1  | 11.0   | 17.2 |
| 65°   | 293.1  | 260.0  | 172.9  | 79.7   | 41.7   | 31.9   | 0.0   | 2.5   | 6.1  | 11.0   | 17.2 |
| 67.5° | 9.8    | 9.8    | 9.8    | 8.6    | 6.1    | 6.1    | 1.2   | 2.5   | 6.1  | 11.0   | 15.9 |
| 70°   | 3.7    | 3.7    | 3.7    | 2.5    | 2.5    | 1.2    | 1.2   | 2.5   | 6.1  | 9.8    | 15.9 |
| 72.5° | 2.5    | 2.5    | 2.5    | 2.5    | 1.2    | 1.2    | 1.2   | 2.5   | 4.9  | 8.6    | 14.7 |
| 75°   | 2.5    | 2.5    | 2.5    | 1.2    | 1.2    | 1.2    | 1.2   | 3.7   | 4.9  | 8.6    | 12.3 |
| 77.5° | 2.5    | 2.5    | 2.5    | 1.2    | 1.2    | 1.2    | 1.2   | 3.7   | 4.9  | 7.4    | 12.3 |
| 80°   | 1.2    | 1.2    | 1.2    | 1.2    | 1.2    | 1.2    | 1.2   | 3.7   | 4.9  | 7.4    | 9.8  |



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**CANDELA DISTRIBUTION (continued):**

|       | 0°  | 5°  | 10° | 15° | 20° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° |
|-------|-----|-----|-----|-----|-----|-------|-----|-------|-----|--------|------|
| 82.5° | 1.2 | 1.2 | 1.2 | 0.0 | 0.0 | 0.0   | 1.2 | 3.7   | 4.9 | 4.9    | 7.4  |
| 85°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 1.2 | 3.7   | 4.9 | 3.7    | 4.9  |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 1.2 | 3.7   | 3.7 | 3.7    | 2.5  |
| 90°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0    | 0.0  |

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**CANDELA DISTRIBUTION (continued):**

|       | 157.5° | 180° |
|-------|--------|------|
| 0°    | 56.4   | 56.4 |
| 2.5°  | 52.7   | 52.7 |
| 5°    | 49.1   | 49.1 |
| 7.5°  | 45.4   | 45.4 |
| 10°   | 41.7   | 41.7 |
| 12.5° | 39.2   | 39.2 |
| 15°   | 35.6   | 36.8 |
| 17.5° | 33.1   | 34.3 |
| 20°   | 31.9   | 33.1 |
| 21°   | 31.9   | 33.1 |
| 22°   | 30.7   | 31.9 |
| 23°   | 30.7   | 31.9 |
| 24°   | 29.4   | 30.7 |
| 25°   | 28.2   | 29.4 |
| 26°   | 28.2   | 29.4 |
| 27°   | 28.2   | 29.4 |
| 28°   | 27.0   | 29.4 |
| 29°   | 27.0   | 28.2 |
| 30°   | 27.0   | 28.2 |
| 31°   | 25.8   | 28.2 |
| 32°   | 25.8   | 28.2 |
| 33°   | 25.8   | 27.0 |
| 34°   | 24.5   | 27.0 |
| 35°   | 24.5   | 27.0 |
| 36°   | 24.5   | 27.0 |
| 37°   | 24.5   | 25.8 |
| 38°   | 24.5   | 27.0 |
| 39°   | 24.5   | 25.8 |
| 40°   | 24.5   | 25.8 |
| 42.5° | 24.5   | 25.8 |
| 45°   | 24.5   | 25.8 |
| 47.5° | 24.5   | 27.0 |
| 50°   | 24.5   | 27.0 |
| 52.5° | 24.5   | 27.0 |
| 55°   | 24.5   | 27.0 |
| 57.5° | 24.5   | 25.8 |
| 60°   | 24.5   | 25.8 |
| 62.5° | 23.3   | 25.8 |
| 65°   | 23.3   | 24.5 |
| 67.5° | 23.3   | 24.5 |
| 70°   | 22.1   | 23.3 |
| 72.5° | 20.9   | 22.1 |
| 75°   | 18.4   | 20.9 |
| 77.5° | 17.2   | 18.4 |
| 80°   | 14.7   | 15.9 |



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CATALOG NUMBER: P3SQAS17R309835DE010 E3SQCA451MW

**CANDELA DISTRIBUTION (continued):**

|       | 157.5° | 180° |
|-------|--------|------|
| 82.5° | 12.3   | 12.3 |
| 85°   | 8.6    | 9.8  |
| 87.5° | 4.9    | 4.9  |
| 90°   | 0.0    | 0.0  |

(END OF REPORT)